

SEQUENCE LISTING

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<120> COMPOSITIONS AND METHODS OF USE OF TARGETING PEPTIDES
FOR DIAGNOSIS AND THERAPY OF HUMAN CANCER

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<141> 2005-04-04

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<151> 2002-08-30

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<151> 2001-09-07

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<160> 132

<170> PatentIn Ver. 2.1

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Gly Lys Lys Leu Gly
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<210> 29

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<210> 31

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Gly Glu Arg
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<210> 33
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Gly Val Leu
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Arg Arg Ala Gly Gly Ser
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Cys Gly Arg Arg Ala Gly Gly Ser Cys
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Cys Asn Val Ser Asp Lys Ser Cys
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<400> 42

Met Lys Leu Ser Leu Val Ala Ala Met Leu Leu Leu Ser Ala Ala
1 5 10 15

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20 25 30

Ile Asp Leu Gly Thr Thr Tyr Ser Cys Val Gly Val Phe Lys Asn Gly
35 40 45

Arg Val Glu Ile Ile Ala Asn Asp Gln Gly Asn Arg Ile Thr Pro Ser
50 55 60

Tyr Val Ala Phe Thr Pro Glu Gly Glu Arg Leu Ile Gly Asp Ala Ala
65 70 75 80

Lys Asn Gln Leu Thr Ser Asn Pro Glu Asn Thr Val Phe Asp Ala Lys
85 90 95

Arg Leu Ile Gly Arg Thr Trp Asn Asp Pro Ser Val Gln Gln Asp Ile
100 105 110

Lys Phe Leu Pro Phe Lys Val Val Glu Lys Lys Thr Lys Pro Tyr Ile
115 120 125

Gln Val Asp Ile Gly Gly Gln Thr Lys Thr Phe Ala Pro Glu Glu
130 135 140

Ile Ser Ala Met Val Leu Thr Lys Met Lys Glu Thr Ala Glu Ala Tyr
145 150 155 160

Leu Gly Lys Lys Val Thr His Ala Val Val Thr Val Pro Ala Tyr Phe
165 170 175

Asn Asp Ala Gln Arg Gln Ala Thr Lys Asp Ala Gly Thr Ile Ala Gly
180 185 190

Leu Asn Val Met Arg Ile Ile Asn Glu Pro Thr Ala Ala Ala Ile Ala
195 200 205

Tyr Gly Leu Asp Lys Arg Glu Gly Glu Lys Asn Ile Leu Val Phe Asp
210 215 220

Leu Gly Gly Thr Phe Asp Val Ser Leu Leu Thr Ile Asp Asn Gly
225 230 235 240

Val Phe Glu Val Val Ala Thr Asn Gly Asp Thr His Leu Gly Gly Glu
245 250 255

Asp Phe Asp Gln Arg Val Met Glu His Phe Ile Lys Leu Tyr Lys Lys
260 265 270

Lys Thr Gly Lys Asp Val Arg Lys Asp Asn Arg Ala Val Gln Lys Leu
275 280 285

Arg Arg Glu Val Glu Lys Ala Lys Arg Ala Leu Ser Ser Gln His Gln
290 295 300

Ala Arg Ile Glu Ile Glu Ser Phe Tyr Glu Gly Glu Asp Phe Ser Glu
305 310 315 320

Thr Leu Thr Arg Ala Lys Phe Glu Glu Leu Asn Met Asp Leu Phe Arg
325 330 335

Ser Thr Met Lys Pro Val Gln Lys Val Leu Glu Asp Ser Asp Leu Lys
340 345 350

Lys Ser Asp Ile Asp Glu Ile Val Leu Val Gly Gly Ser Thr Arg Ile
355 360 365

Pro Lys Ile Gln Gln Leu Val Lys Glu Phe Phe Asn Gly Lys Glu Pro
370 375 380

Ser Arg Gly Ile Asn Pro Asp Glu Ala Val Ala Tyr Gly Ala Ala Val
385 390 395 400

Gln Ala Gly Val Leu Ser Gly Asp Gln Asp Thr Gly Asp Leu Val Leu
405 410 415

Leu Asp Val Cys Pro Leu Thr Leu Gly Ile Glu Thr Val Gly Gly Val
420 425 430

Met Thr Lys Leu Ile Pro Arg Asn Thr Val Val Pro Thr Lys Lys Ser
435 440 445

Gln Ile Phe Ser Thr Ala Ser Asp Asn Gln Pro Thr Val Thr Ile Lys
450 455 460

Val Tyr Glu Gly Glu Arg Pro Leu Thr Lys Asp Asn His Leu Leu Gly
465 470 475 480

Thr Phe Asp Leu Thr Gly Ile Pro Pro Ala Pro Arg Gly Val Pro Gln
485 490 495

Ile Glu Val Thr Phe Glu Ile Asp Val Asn Gly Ile Leu Arg Val Thr
500 505 510

Ala Glu Asp Lys Gly Thr Gly Asn Lys Asn Lys Ile Thr Ile Thr Asn
515 520 525

Asp Gln Asn Arg Leu Thr Pro Glu Glu Ile Glu Arg Met Val Asn Asp
530 535 540

Ala Glu Lys Phe Ala Glu Glu Asp Lys Lys Leu Lys Glu Arg Ile Asp
545 550 555 560

Thr Arg Asn Glu Leu Glu Ser Tyr Ala Tyr Ser Leu Lys Asn Gln Ile
565 570 575

Gly Asp Lys Glu Lys Leu Gly Gly Lys Leu Ser Ser Glu Asp Lys Glu
580 585 590

Thr Met Glu Lys Ala Val Glu Glu Lys Ile Glu Trp Leu Glu Ser His
595 600 605

Gln Asp Ala Asp Ile Glu Asp Phe Lys Ala Lys Lys Glu Leu Glu
610 615 620

Glu Ile Val Gln Pro Ile Ile Ser Lys Leu Tyr Gly Ser Ala Gly Pro
625 630 635 640

Pro Pro Thr Gly Glu Glu Asp Thr Ala Glu Lys Asp Glu Leu
645 650

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<210> 64
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Cys Thr Thr His Trp Gly Phe Thr Leu Cys
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Val Met Gly Ser Val Thr Gly
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<210> 82
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Glu Cys His Ala
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<210> 84
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<400> 84
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Ala Cys Thr Gln
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<210> 85
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<400> 85
Arg Gly Cys Thr Glu Ala Ala Gly Leu Val Ile Gly Ile Thr Thr His
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Gln Cys Gly Asn
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<210> 86
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<400> 86
Ile Gly Cys Asn His Pro Ser Pro Leu Gly Ser Thr Val Val Pro Thr
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Tyr Cys Phe Lys
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Peptide

<400> 87
Gly Thr Cys Pro Arg Gln Phe Phe His Met Gln Glu Phe Trp Pro Ser
1 5 10 15

Asp Cys Ser Arg
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<210> 88
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Peptide

<400> 88
Asp Arg Cys Val Leu Val Arg Pro Glu Phe Gly Arg Gly Asp Ala Arg
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Leu Cys His Ser
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Peptide

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Glu Gly Cys Ser Asp Ile Met Asn Thr Ala Ala Glu Arg Val Thr Gly
1 5 10 15

Asp Cys Ser Tyr
20

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Peptide

<400> 90

Val Phe Cys Cys Gly Ser Tyr Cys Gly Gly Val Glu Met Leu Ala Ser
1 5 10 15

Arg Cys Gly His
20

<210> 91
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Peptide

<400> 91
Arg Glu Cys Gly Arg Thr Val His Arg Tyr Pro Trp Gly Ser Pro Glu
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Ser Cys Glu Arg
20

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Peptide

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Asp Ala Cys Ser Arg Phe Leu Gly Glu Arg Val Asp Ala Thr Ala Ala
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Gly Cys Ser Arg
20

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Peptide

<400> 93
Gly Asn Cys Met Gly Leu Gln Val Ser Glu Leu Phe Met Gly Pro Tyr
1 5 10 15

Lys Cys Arg Gln
20

<210> 94
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Ser Arg Cys His Ala Leu Arg Ser Gln Ser Val Ser Thr Ser Ala Gly
1 5 10 15

Ala Cys Ile Ser
20

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<400> 95
Tyr Ser Cys Thr Arg Leu Asn Gly Thr Gly Leu Gln Asn Pro Pro Ser
1 5 10 15

Ala Cys Asp Arg
20

<210> 96
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 96
Trp Val Cys Thr Ser Ala Ser Gln Asp Thr Arg Leu Lys Glu Pro Gly
1 5 10 15

Met Cys Ile Ala
20

<210> 97
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 97
Met His Cys Thr Ser Gln Thr Leu Arg Gly Thr Pro Ser Leu Ala Pro
1 5 10 15

Lys Cys Ser Asp
20

<210> 98
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 98
Gln His Cys Val Lys Gly Gln Phe Pro Phe Arg Glu Ser Val Thr Ile
1 5 10 15

Thr Cys Asn Ser
20

<210> 99
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 99
His Thr Cys Trp Gly Ala Arg Asp Val Ala Gln Pro Ser Gly Thr Val
1 5 10 15

Arg Cys Leu Lys
20

<210> 100
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 100
Ala Arg Cys Arg Glu Asp Thr Gly Phe Met Gly Leu Gly Ser Ala Asn

1

5

10

15

Ile Cys Thr Asp
20

<210> 101
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Peptide

<400> 101
Arg Thr Cys Glu Glu Val Arg Asn Arg Ala Leu Glu Glu Leu Thr Asn
1 5 10 15

Phe Cys Pro Tyr
20

<210> 102
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Peptide

<400> 102
Arg Thr Cys Gln Val Arg Ser Asn Asn Ile Ser Pro Arg Met Ala Leu
1 5 10 15

Ala Cys Val Thr
20

<210> 103
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Peptide

<400> 103
Arg Ser Cys Val Asn Ser Asp Thr Gly Val Leu Gln Arg Gly Ala Pro
1 5 10 15

Ser Cys Leu Phe
20

<210> 104
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 104
Arg Gly Cys Trp Arg Asp Ser Thr Ala Trp His Val Ser Tyr Pro Val
1 5 10 15

Glu Cys Leu Ala
20

<210> 105
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 105
Asn Arg Cys Met Pro Gly Phe Leu Asp Asp Ala Asp Ser Ala Ala Ser
1 5 10 15

Pro Cys Gly Ser
20

<210> 106
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 106
Asn Gln Cys Ser Ser Leu Leu Thr Tyr Gln Gly Trp Lys Arg Thr Lys
1 5 10 15

Asp Cys Ile Pro
20

<210> 107
<211> 20
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Peptide

<400> 107

Asn Asp Cys Ser Ala His Ala Gln Pro Gly Trp Asp Glu Val Pro Pro
1 5 10 15

Met Cys Asn Gln
20

<210> 108

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Peptide

<400> 108

Asn Asn Cys Pro Val Glu Gly Ser Gln Gln Asn Tyr Ser Gly Ala Thr
1 5 10 15

Trp Cys Arg Ala
20

<210> 109

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Peptide

<400> 109

Thr Thr Cys Asn Lys Ser Met Ser Ser Gln Pro Met Arg Asp Ser Arg
1 5 10 15

Glu Cys His Arg
20

<210> 110

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Peptide

<400> 110

Thr Ser Cys Val Arg Thr Gly His Asp Glu Asn Leu Leu Lys Ala Ala
1 5 10 15

Tyr Cys Ser Ser
20

<210> 111
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 111
Thr Glu Cys Arg Gly Ala Ser Ser Gly Ser Val Ser Gly Ala Ala Thr
1 5 10 15

Asp Cys Arg Asp
20

<210> 112
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 112
Thr Leu Cys Pro Pro Ala Ser Met Gly Leu Gly Arg Glu Lys Pro Arg
1 5 10 15

Leu Cys Ser Val
20

<210> 113
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 113
Thr Leu Cys Arg Ser Leu Glu His Glu Val Gly Leu Phe Lys Pro Arg
1 5 10 15

Glu Cys Pro Phe
20

<210> 114

<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 114
Leu Arg Cys Pro Leu Glu Val Asp Arg Pro Asn Arg Asp Pro Ala Phe
1 5 10 15

Leu Cys Ser Gln
20

<210> 115
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 115
Leu Gly Cys Asn Lys Gly Arg Tyr Trp Leu Ser Thr Arg Leu Ser Val
1 5 10 15

Ser Cys Ala Leu
20

<210> 116
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 116
Val Ala Cys Asp Ile Ser Ala Val Glu Arg Leu Pro Ala Ser Ala Arg
1 5 10 15

Ser Cys Lys Thr
20

<210> 117
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

Peptide

<400> 117

Val Val Cys Phe Met Glu Arg Gln Met Gly Thr Asp Val Val Ser Pro
1 5 10 15

Met Cys Val Asn

20

<210> 118

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Peptide

<400> 118

Val Glu Cys Val Met Ala Ser Ala Ser Thr Asp Gly Thr Ala Ala His
1 5 10 15

Pro Cys Lys Pro

20

<210> 119

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Peptide

<400> 119

Val Arg Cys Asn Glu Ala Gln Leu Gln Asp Ser Gly Thr Val Pro His
1 5 10 15

Pro Cys Leu Arg

20

<210> 120

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Peptide

<400> 120

Pro Asn Cys Asp Leu Asp Asp Ile Val Leu Asn Pro Tyr Thr Ala Gly
1 5 10 15

Pro Cys Gly Thr
20

<210> 121
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Peptide

<400> 121
Pro Asn Cys Tyr Ser Gly Asp Gly Glu Ile Ser Ser His Ile Pro Val
1 5 10 15

Gln Cys Leu Met
20

<210> 122
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Peptide

<400> 122
Pro Gly Cys Val Val Ser Pro Phe Ala Leu Ser Ala Gln Gly Thr Ser
1 5 10 15

Val Cys Thr Ile
20

<210> 123
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Peptide

<400> 123
Gly Asp Cys Glu Thr Asn Asn Val Thr Lys Val Gly Gly Ile Thr Arg
1 5 10 15

Asn Cys Val Gly
20

<210> 124
<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Peptide

<400> 124

Gly Tyr Cys Leu Thr Val Val Gly Gly Ala Val Leu Thr Ile Ala Leu
1 5 10 15

Leu Cys Val Thr
20

<210> 125

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Peptide

<400> 125

Gly Pro Cys Ala Ala Thr Gly Val Asn Pro Gly Asp His Gly Ala Ala
1 5 10 15

Val Cys Asp Gln
20

<210> 126

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Peptide

<400> 126

Gly Asp Cys Glu Thr Asn Asn Val Thr Lys Val Gly Gly Ile Thr Arg
1 5 10 15

Asn Cys Val Gly
20

<210> 127

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Peptide

<400> 127
Lys Ser Cys Gly Lys Tyr Gly Leu Ile Val Gly Gln Pro Phe Ala Glu
1 5 10 15

His Cys Pro Pro
20

<210> 128
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Peptide

<400> 128
Lys Leu Cys Tyr Arg Ser Ser Ala Gly Ser Glu Leu Arg Pro Pro Glu
1 5 10 15

Lys Cys Ala Tyr
20

<210> 129
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Peptide

<400> 129
Lys Ile Cys Pro Val Thr Asn Met Trp Thr Thr Pro Ser Trp Ala His
1 5 10 15

Lys Cys Gly Met
20

<210> 130
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 130
aggctcgagg atcctcgccc gacggggct

29

<210> 131

<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 131
aggtctagaa ttcgccccag cggcccc

27

<210> 132
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Peptide

<400> 132
Cys Val Pro Glu Leu Gly His Glu Cys
1 5